What is claimed is:

1. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) and each of the terminal and the radio network has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said method comprising the steps of:

a) at the BS, determining an operating type of the core network and generating core network operating type information representing the operating type of the core network;

b) at the BS, setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of the core network operating type information;

c) at the BS, providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message;

d) extracting, at the terminal, the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the message;

e) recognizing, at the terminal, the operating type of the core network on the basis of the extracted core network operating type information; and

f) at the terminal, setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

2. The method as recited in claim 1, after said step e), further comprising the step of storing the recognized operating type of the core network.

3. The method as recited in claim 1, wherein said step a) includes the step of determining the operating type of the core network on the basis of information from an information storage device contained in the BS during a time period of radio network initialization.

4. The method as recited in claim 3, wherein the information storage device includes a dip-switch.

5. The method as recited in claim 3, wherein the information storage device includes a read only memory (ROM).

6. The method as recited in claim 1, wherein the step a) includes the step of determining the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

7. The method as recited in claim 6, wherein the message exchanged with the core network is a management/maintenance message.

8. The method as recited in claim 6, wherein the message exchanged with the core network is a signaling message.

9. The method as recited in claim 1, wherein said step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into the predetermined location of the message to be transmitted to the terminal; and

c2) transmitting the message to the terminal through the predetermined channel.

10. The method as recited in claim 1, wherein said step c) includes the steps of:

c3) providing the terminal with the core network operating type information and the information related to the core network through a synchronous channel if the radio network is a hybrid type synchronous radio network; and

c4) providing the terminal with the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is a hybrid type asynchronous radio network.

11. The method as recited in claim 9, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is a hybrid type synchronous radio network; and

wherein the predetermined location is the core network type information field of a master information block in a system information message if the radio network is a hybrid type asynchronous radio network.

12. The method as recited in claim 1, wherein the core network operating type information is one of ANSI-41 information representing a synchronous operating type core network and global system for mobile communications application part(GSM-MAP) information representing an asynchronous operating type core network.

13. The method as recited in claim 12, wherein the radio network includes a hybrid type synchronous radio network;

wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the radio network is a hybrid type synchronous radio network and the core network is of the synchronous operating type (ANSI-41); and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID), a core network (CN) domain identification (ID), a non-access

stratum (NAS) system information if the radio network is the hybrid type synchronous radio network and the core network is of the asynchronous operating type (GSM-MAP).

5   14. The method as recited in claim 12, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the radio network is a hybrid type
10 asynchronous radio network and the core network is of the synchronous operating type (ANSI-41); and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the radio network is the hybrid type asynchronous radio
15 network and the core network is of the asynchronous operating type (GSM-MAP).

15. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio
20 network in a mobile telecommunication system, wherein the radio network has a base station (BS) and each of the terminal and the radio network has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said apparatus comprising:
25   determination means, contained in the BS, for determining an operating type of the core network;

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first setting means, employed in the BS, for setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of the determined operating type of the core network;

5   message means, included in the BS, for providing the terminal with core network operating type information representing the determined operating type of the core network and information related to the core network through a predetermined channel;

10   receiver means, provided in the terminal, for receiving a channel message having the core network operating type information and the information related to the core network;

extraction means, contained in the terminal, for extracting the core network operating type information

15   inserted into a predetermined location of the channel message;

detection means, contained in the terminal, for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

20   second setting means, contained in the terminal, for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

25   16. The apparatus as recited in claim 15, further comprising a storage device, contained in the terminal, for storing the recognized operating type of the core network.

17. The apparatus as recited in claim 15, wherein said determination means determines the operating type of the core network on the basis of information from an information storage device included in the BS, during a time period of system initialization.

18. The apparatus as recited in claim 17, wherein the information storage device includes a dip-switch.

19. The apparatus as recited in claim 17, wherein the information storage device includes a read only memory (ROM).

20. The apparatus as recited in claim 15, wherein said determination means determines the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

21. The apparatus as recited in claim 20, wherein the message exchanged with the core network is a management/maintenance message.

22. The apparatus as recited in claim 20, wherein the message exchanged with the core network is a signaling message.

23. The apparatus as recited in claim 15, wherein the message means:

provides the core network operating type information and the information related to the core network through a synchronization channel if the radio network is a hybrid type synchronous radio network; and

provides the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is a hybrid type asynchronous radio network.

24. The apparatus as recited in claim 15, wherein the message means:

periodically inserts the core network operating type information and the information related to the core network into a core network type information field if the radio network is a hybrid type synchronous radio network; and

provides the terminal with the core network operating type information and the information related to the core network through a system information channel if the radio network is a hybrid type asynchronous radio network.

25. The apparatus as recited in claim 15, wherein the core network operating type information is one of ANSI-41 information ANSI-41 representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network .

26. The apparatus as recited in claim 15, wherein the BS includes at least a base transceiver station (BTS) and a base station controller (BSC) for controlling the BTS.

27. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) storing core network operating type information and information related to the core network on a storage device;

b) reading the core network operating type information and information related to the core network stored on the storage device during a time period of initialization of the BS;

c) providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel;

d) extracting, at the terminal, the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the received message;

e) recognizing, at the terminal, the operating type of the core network on the basis of the extracted core network operating type information; and

f) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

28. The method as recited in claim 27, after the step e) further comprising the step of storing, at the terminal, the recognized operating type of the core network.

29. The method as recited in claim 27, wherein the storage device includes a dip-switch.

30. The method as recited in claim 27, wherein the storage device includes a read only memory (ROM).

31. The method as recited in claim 27, wherein the step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into the predetermined location of the message; and

c2) transmitting the message to the terminal through the predetermined channel.

32. The method as recited in claim 27, wherein the step c) includes the steps of:

c3) providing the terminal with the core network operating type information and the information related to the core network through a synchronous channel if the radio network is of the synchronous operating type; and

c4) providing the terminal with the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is of the asynchronous operating type.

33. The method as recited in claim 31, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is of a synchronous operating type; and

wherein the predetermined location is a core network type information field of a master information block in the system information message if the radio network is of the asynchronous operating type.

34. The method as recited in claim 27, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network.

35. The method as recited in claim 27, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID), if the radio network is of the synchronous operating type and the core network operating type information is ANSI-41 information representing a synchronous type core network; and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID), a core network (CN) domain identification (ID), a non-access stratum (NAS) system information if the radio network is of the synchronous operating type and the core network operating type information is GSM-MAP information representing an asynchronous type core network.

36. The method as recited in claim 27, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the radio network is of the asynchronous operating type and the core network operating type information is ANSI-41 information representing an asynchronous type core network; and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the radio network is of the asynchronous operating type and

the core network operating type information is GSM-MAP information representing an asynchronous type core network .

37. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station(BS) and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, comprising:

a storage device, contained in the BS, for storing core network operating type information representing operating type of the core network and information related to the core network;

first extraction means, contained in the BS, for reading the core network operating type information and information related to the core network stored in the storage device during a time period of initialization of the BS;

message means, contained in the BS, for providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel;

second extraction means, contained in the terminal, for extracting the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the received message;

detection means, . contained in the terminal, for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

5   setting means, contained in the terminal, for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

10   38. The apparatus as recited in claim 37, further comprising a second storage device, contained in the terminal, for storing the recognized operating type of the core network type.

15   39. The apparatus as recited in claim 37, wherein the first storage device includes a dip-switch.

40. The apparatus as recited in claim 37, wherein the first storage device includes a read only memory (ROM).

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41. The apparatus as recited in claim 37, wherein the message means:

provides the core network operating type information and the information related to the core network through a
25 synchronization channel if the radio network is of the synchronous operating type; and

provides the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is of the asynchronous operating type.

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42. The apparatus as recited in claim 37, wherein the message means:

periodically inserts the core network operating type information and the information related to the core network

10 into the core network type information field if the radio network is of the synchronous operating type; and

provides the terminal with the core network operating type information and the information related to the core network through a system information channel if the radio

15 network is of the asynchronous operating type.

43. The apparatus as recited in claim 37, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network and

20 GSM-MAP information representing an asynchronous type core network.

44. The apparatus as recited in claim 37, wherein the BS includes at least one BTS and BSC for controlling the BTS.

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45. A method for interfacing between a radio network and a core network connected to the radio network in a mobile

telecommunication system, wherein the radio network has a base station (BS) having a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said method comprising the steps of:

a) determining an operating type of the core network;

b) setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of core network operating type information representing the determined operating type of the core network; and

c) providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message.

46. The method as recited in claim 45, wherein said step a) includes the step of determining the operating type of the core network on the basis of information from an information storage device contained in BS during a time period of radio network initialization.

47. The method as recited in claim 46, wherein the information storage device includes a dip-switch.

48. The method as recited in claim 46, wherein the information storage device includes a read only memory (ROM).

49. The method as recited in claim 45, wherein the step a) includes the step of determining the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

50. The method as recited in claim 49, wherein the message exchanged with the core network is a management/maintenance message.

51. The method as recited in claim 49, wherein the message exchanged with the core network is a signaling message.

52. The method as recited in claim 45, wherein the step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into the predetermined location of the message to be transmitted to the terminal; and

c2) transmitting the message to the terminal through the predetermined channel.

53. The method as recited in claim 45, wherein the step c) includes the steps of:

c3) providing the terminal with the core network operating type information and the information related to the

core network through a synchronous channel if the radio network is a hybrid type synchronous radio network; and

c4) providing the terminal with the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is a hybrid type asynchronous radio network.

54. The method as recited in claim 52, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is a hybrid type synchronous radio network; and

wherein the predetermined location is a core network type information field of a master information block in a system information message if the radio network is a hybrid type synchronous radio network.

55. The method as recited in claim 45, wherein the core network operating type information is one of ANSI-41 information representing a synchronous operating type core network and GSM-MAP information representing an asynchronous operating type core network.

56. The method as recited in claim 55, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the radio network is a hybrid type

synchronous radio network and the core network is of the synchronous operating type (ANSI-41); and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID), a core network (CN) domain identification (ID), a non-access stratum (NAS) system information if the radio network is a hybrid type synchronous radio network and the core network is of the asynchronous operating type (GSM-MAP).

57. The method as recited in claim 55, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the radio network is a hybrid type asynchronous radio network and the core network is of the synchronous operating type (ANSI-41); and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the radio network is a hybrid type asynchronous radio network and the core network is of the asynchronous operating type (GSM-MAP).

58. An apparatus for interfacing between a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having a hybrid operating type being possible to be set as either a synchronous operating type or an

asynchronous operating type, said apparatus comprising:

determination means for determining an operating type of the core network;

setting means for setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of core network operating type information representing the determined operating type of the core network; and

message means for providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message.

59. The apparatus as recited in claim 58, wherein said determination means determines the operating type of the core network on the basis of information from an information storage device contained in BS during a time period of radio network initialization.

60. The apparatus as recited in claim 59, wherein the information storage device includes a dip-switch.

61. The apparatus as recited in claim 59, wherein the information storage device includes a read only memory (ROM).

62. The apparatus as recited in claim 58, wherein said determination means determines the operating type of the core

network on the basis of information obtained from a message exchanged with the core network.

63. The apparatus as recited in claim 62, wherein the message exchanged with the core network is a management/maintenance message.

64. The apparatus as recited in claim 62, wherein the message exchanged with the core network is a signaling message.

65. The apparatus as recited in claim 58, wherein the message means provides the terminal with the core network operating type information and the information related to the core network through a synchronous channel if the radio network is a hybrid type synchronous radio network; and provides the terminal with the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is a hybrid type asynchronous radio network.

66. The method as recited in claim 58, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is a hybrid type synchronous radio network; and

wherein the predetermined location is a core network type information field of a master information block in a system

information message if the radio network is a hybrid type asynchronous radio network.

67. The method as recited in claim 58, wherein the core network operating type information is one of ANSI-41 information representing a synchronous operating type core network and GSM-MAP information representing an asynchronous operating type core network.

68. The apparatus as recited in claim 58, wherein the BS includes at least a BTS and a BSC for controlling the base station transceiver.

69. A computer readable media storing a program instructions, the program instructions disposed on a computer to perform a method for interfacing between a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said method comprising the steps of:

a) determining an operating type of the core network;

b) setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of core network operating type information representing the determined operating type of the core network; and

c) providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message.

70. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) storing core network operating type information representing operating type of the core network and information related to the core network on a storage device;

b) reading the core network operating type information and information related to the core network stored on the storage device during a time period of initialization of the BS; and

c) periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel.

71. The method as recited in claim 70, wherein the storage device includes a dip-switch.

72. The method as recited in claim 70, wherein the storage device includes a read only memory (ROM).

73. The method as recited in claim 70, wherein the step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into a predetermined location of the message; and

c2) transmitting the message to the terminal through the predetermined channel.

74. The method as recited in claim 70, wherein the step c) includes the steps of:

c3) providing the terminal with the core network operating type information and the information related to the core network through a synchronous channel if the radio network is of the synchronous operating type; and

c4) providing the terminal with the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is of the asynchronous operating type.

75. The method as recited in claim 73, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is of a synchronous operating type; and

wherein the predetermined location is a core network type information field of a master information block in the system information message if the radio network is of the asynchronous operating type.

76. The method as recited in claim 70, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network.

77. The method as recited in claim 70, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID), if the radio network is of the synchronous operating type and the core network operating type information is ANSI-41 information representing a synchronous type core network.

78. The method as recited in claim 70, wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the radio network is of the asynchronous operating type and the core network operating type information is GSM-MAP information representing an asynchronous type core network.

79. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station(BS) and the terminal has a

5   hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, comprising:

a storage device, contained in the BS, for storing core network operating type information representing operating type

10   of the core network and information related to the core network;

extraction means, contained in the BS, for reading the core network operating type information and information related to the core network stored in the storage device

15   during a time period of initialization of the BS; and

message means, contained in the BS, for periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel.

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80. The apparatus as recited in claim 79, wherein the storage device includes a dip-switch.

81. The apparatus as recited in claim 79, wherein the

25   storage device includes a read only memory (ROM).

82. The apparatus as recited in claim 79, wherein the message means:

provides the core network operating type information and the information related to the core network through a
5   synchronization channel if the radio network is of the synchronous operating type; and

provides the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is of the
10   asynchronous operating type.

83. The apparatus as recited in claim 79, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is
15   of the synchronous operating type; and

wherein the predetermined location is a core network type information field of a master information block in a system information message if the radio network is of the asynchronous operating type.

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84. The apparatus as recited in claim 79, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network and GSM-MAP information representing an asynchronous type core
25   network .

85. The apparatus as recited in claim 79, wherein the BS includes at least one BTS and BSC for controlling the BTS.

86. A computer readable media storing a program instructions, the program instructions disposed on a computer to perform a method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) storing core network operating type information representing operating type of the core network and information related to the core network on a storage device;

b) reading the core network operating type information and information related to the core network stored on the storage device during a time period of initialization of the BS; and

c) periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel.

87. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the terminal has a

hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) receiving a message having core network operating type information and information related to the core network as a message through a predetermined channel;

b) extracting the core network operating type information from the received message, the core network operating type information being inserted into a predetermined location of the received message;

c) recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

d) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

88. The method as recited in claim 87, after the step c), further comprising the step of storing, at the terminal, the recognized operating type of the core network.

89. The method as recited in claim 87, wherein the predetermined channel is a synchronous channel if the radio network is of the synchronous operating type; and a broadcast control channel if the radio network is of the asynchronous operating type.

90. The method as recited in claim 87, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is of a synchronous operating type; and

wherein the predetermined location is a core network type information field of a master information block in the system information message if the radio network is of the asynchronous operating type.

91. The method as recited in claim 87, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network.

92. The method as recited in claim 91, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID), if the radio network is of the synchronous operating type and the core network operating type information is ANSI-41 information representing a synchronous type core network; and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID), a core network (CN) domain identification (ID), a non-

access stratum (NAS) system information if the radio network is of the synchronous operating type and the core network operating type information is GSM-MAP information representing an asynchronous type core network.

93. The method as recited in claim 91, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the radio network is of the asynchronous operating type and the core network operating type information is ANSI-41 information representing an asynchronous type core network; and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the radio network is of the asynchronous operating type and the core network operating type information is GSM-MAP information representing an asynchronous type core network.

94. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, comprising:

receiver means for receiving a message having the core network operating type information and information related to the core network through a predetermined channel;

extraction means for extracting the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the received message;

detection means for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

setting means for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

95. The apparatus as recited in claim 94, further comprising a storage device for storing the recognized operating type of the core network.

96. The apparatus as recited in claim 94, wherein the predetermined channel is a synchronization channel if the radio network is of the synchronous operating type; and a broadcast control channel if the radio network is of the asynchronous operating type.

97. The apparatus as recited in claim 94, wherein the core network operating type information is one of ANSI-41

information representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network.

98. The apparatus as recited in claim 94, wherein the predetermined location is a core network type information field of a synchronous channel message if the radio network is of a synchronous operating type; and

wherein the predetermined location is a core network type information field of a master information block in the system information message if the radio network is of the asynchronous operating type.

99. The apparatus as recited in claim 94, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID), if the radio network is of the synchronous operating type and the core network operating type information is ANSI-41 information representing a synchronous type core network.

100. The method as recited in claim 94, wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the radio network is of the asynchronous operating type and the core network

operating type information is GSM-MAP information representing an asynchronous type core network.

101. A computer readable media storing a program instructions, the program instructions disposed on a computer to perform a method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) receiving a message having core network operating type information and information related to the core network as a message through a predetermined channel;

b) extracting the core network operating type information from the received message, the core network operating type information being inserted into a predetermined location of the received message;

c) recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

d) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

102. A method for interfacing between a radio network and

a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) being possible to be set as either a synchronous operating type or an asynchronous operating type and the radio network is of a synchronous operating type, said method comprising the steps of:

a) at the BS, determining an operating type of the core network;

b) at the BS, setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of the determined operating type of the core network;

c) at the BS, providing the terminal with the core network operating type information representing the operating type of the core network and information related to the core network through a predetermined channel in a form of a message;

d) extracting, at a terminal, the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the message;

e) recognizing, at the terminal, the operating type of the core network on the basis of the extracted core network operating type information; and

f) at the terminal, setting an operating type of the terminal to the synchronous operating type or the asynchronous

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operating type on the basis of the recognized operating type of the core network.

103. The method as recited in claim 102, wherein said step a) includes the step of determining the operating type of the core network on the basis of information from an information storage device contained in the BS during a time period of radio network initialization.

104. The method as recited in claim 103, wherein the information storage device includes a dip-switch.

105. The method as recited in claim 103, wherein the information storage device includes a read only memory (ROM).

106. The method as recited in claim 102, wherein the step a) includes the step of determining the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

107. The method as recited in claim 106, wherein the message exchanged with the core network is a management/maintenance message.

108. The method as recited in claim 106, wherein the message exchanged with the core network is a signaling message.

109. The method as recited in claim 102, wherein said step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into the predetermined location of the message to be transmitted to the terminal; and

c2) transmitting the message to the terminal through the predetermined channel.

110. The method as recited in claim 102, wherein said step c) includes the steps of providing the terminal with the core network operating type information and the information related to the core network through a synchronous channel.

111. The method as recited in claim 109, wherein the predetermined location is a core network type information field of a synchronous channel message

112. The method as recited in claim 102, wherein the core network operating type information is one of ANSI-41 information representing a synchronous operating type core network and GSM-MAP information representing an asynchronous operating type core network.

113. The method as recited in claim 112, wherein the information related to the core network includes a protocol

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revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) and the core network is of the synchronous operating type (ANSI-41); and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID), a core network (CN) domain identification (ID), a non-access stratum (NAS) system information and the core network is of the asynchronous operating type (GSM-MAP).

114. The method as recited in claim 102, wherein said step d) includes the steps of:

d1) selecting a code division multiple access (CDMA) system;

d2) acquiring a pilot channel; and

d3 acquiring a synchronous channel.

115. An apparatus for interfacing between a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) being possible to be set as either a synchronous operating type or an asynchronous operating type and the radio network is of a synchronous operating type, said apparatus comprising:

determination means, contained in the BS, for determining an operating type of the core network;

first setting means, employed in the BS, for setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of the determined operating type of the core network;

message means, included in the BS, for providing the terminal with core network operating type information representing the determined operating type of the core network and information related to the core network through a predetermined channel;

receiver means, provided in the terminal, for receiving a channel message having the core network operating type information and the information related to the core network;

extraction means, contained in the terminal, for extracting the core network operating type information inserted into a predetermined location of the channel message;

detection means, contained in the terminal, for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

second setting means, contained in the terminal, for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

116. The apparatus as recited in claim 115, further comprising a storage device, contained in the terminal, for storing the recognized operating type of the core network.

117. The apparatus as recited in claim 115, wherein said determination means determines the operating type of the core network on the basis of information from an information storage device included in the BS, during a time period of system initialization.

118. The apparatus as recited in claim 117, wherein the information storage device includes a dip-switch.

119. The apparatus as recited in claim 117, wherein the information storage device includes a read only memory (ROM).

120. The apparatus as recited in claim 115, wherein said determination means determines the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

121. The apparatus as recited in claim 120, wherein the message exchanged with the core network is a management/maintenance message.

122. The apparatus as recited in claim 120, wherein the message exchanged with the core network is a signaling message.

123. The apparatus as recited in claim 115, wherein the message means provides the core network operating type information and the information related to the core network through a synchronization channel.

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124. The apparatus as recited in claim 115, wherein the message means:

periodically inserts the core network operating type information and the information related to the core network

10 into a core network type information field.

125. The apparatus as recited in claim 115, wherein the core network operating type information is one of ANSI-41 information ANSI-41 representing a synchronous type core

15 network and GSM-MAP information representing an asynchronous type core network .

126. The apparatus as recited in claim 125, wherein the information related to the core network includes a protocol

20 revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) and the core network is of the synchronous operating type (ANSI-41); and

wherein the information related to the core network

25 includes a public land mobile network identification (PLMN ID), a core network (CN) domain identification (ID), a non-

access stratum (NAS) system information and the core network is of the asynchronous operating type (GSM-MAP).

127. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having a synchronous operating type and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) storing core network operating type information and information related to the core network on a storage device;

b) reading the core network operating type information and information related to the core network stored on the storage device during a time period of initialization of the BS; and

c) periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel.

128. The method as recited in claim 127, wherein the storage device includes a-dip switch.

129. The method as recited in claim 127, wherein the storage device includes a read only memory (ROM).

130. The method as recited in claim 127, wherein the step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into a predetermined location of the message; and

c2) transmitting the message to the terminal through the predetermined channel.

131. The method as recited in claim 127, wherein the step c) includes the steps of providing the terminal with the core network operating type information and the information related to the core network through a synchronous channel.

132. The method as recited in claim 130, wherein the predetermined location is a core network type information field of a synchronous channel message.

133. The method as recited in claim 127, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network .

134. The method as recited in claim 127, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID).

135. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station(BS) having a synchronous operating type and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said apparatus comprising:

a storage device for storing core network operating type information and information related to the core network;

extraction means for reading the core network operating type information and information related to the core network stored in the storage device during a time period of initialization of the BS; and

message means for providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel. ;

136. The apparatus as recited in claim 135, wherein the first storage device includes a dip-switch.

137. The apparatus as recited in claim 135, wherein the first storage device includes a read only memory (ROM).

138. The apparatus as recited in claim 135, wherein the message means provides the core network operating type

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information and the information related to the core network through a synchronization channel.

139. The apparatus as recited in claim 135, wherein the message means inserts the core network operating type information and the information related to the core network into the core network type information field of a synchronous channel message.

140. The apparatus as recited in claim 135, wherein the core network operating type information is ANSI-41 information representing a synchronous type core network .

141. The apparatus as recited in claim 135, wherein the BS includes at least one BTS and BSC for controlling the BTS.

142. A method for interfacing between a terminal and a core network connected to the radio network in a mobile telecommunication system, wherein the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) receiving a message having core network operating type information and information related to the core network as a message through a predetermined channel;

b) extracting the core network operating type information from the received message, the core network operating type

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information being inserted into a predetermined location of the received message;

c) recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

d) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

143. The method as recited in claim 142, after the step c), further comprising the step of storing the recognized operating type of the core network.

144. The method as recited in claim 142, wherein the predetermined channel is a synchronous channel.

145. The method as recited in claim 142, wherein the predetermined location is a core network type information field of a synchronous channel message.

146. The method as recited in claim 142, wherein the core network operating type information is ANSI-41 information representing a synchronous type core network.

147. The method as recited in claim 146, wherein the information related to the core network includes a protocol

revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID).

148. An apparatus for interfacing between a terminal and a core network connected to the radio network in a mobile telecommunication system, wherein and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said apparatus comprising:

receiver means for receiving a message having the core network operating type information and information related to the core network from a base station through a predetermined channel;

extraction means for extracting the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the received message;

detection means for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

setting means for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

149. The apparatus as recited in claim 148, further comprising a storage device for storing the recognized operating type of the core network.

150. The apparatus as recited in claim 148, wherein the predetermined channel is a synchronization channel.

151. The apparatus as recited in claim 148, wherein the core network operating type information is ANSI-41 information representing a synchronous type core network.

152. The apparatus as recited in claim 148, wherein the predetermined location is a core network type information field of a synchronous channel message.

153. The apparatus as recited in claim 148, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID).

154. A computer readable media storing a program instructions, the program instructions disposed on a computer to perform a method for interfacing between a terminal and a core network connected to the radio network in a mobile telecommunication system, wherein the terminal has a hybrid operating type being possible to be set as either a

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synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) receiving a message having core network operating type information and information related to the core network as a message from the radio network through a predetermined channel;

b) extracting the core network operating type information from the received message, the core network operating type information being inserted into a predetermined location of the received message;

c) recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

d) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

155. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type and the radio network has an asynchronous operating type, said method comprising the steps of:

a) at the BS, determining an operating type of the core network and generating a core network operating type information representing the operating type of the core network;

b) at the BS, setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of the core network operating type information;

c) at the BS, providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message;

d) extracting, at the terminal, the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the message;

e) recognizing, at the terminal, the operating type of the core network on the basis of the extracted core network operating type information; and

f) at the terminal, setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

156. The method as recited in claim 155, after said step e), further comprising the step of storing the recognized operating type of the core network.

157. The method as recited in claim 155, wherein said step a) includes the step of determining the operating type of the core network on the basis of information from an information storage device contained in the BS during a time period of radio network initialization.

158. The method as recited in claim 157, wherein the information storage device includes a dip-switch.

159. The method as recited in claim 157, wherein the information storage device includes a read only memory (ROM).

160. The method as recited in claim 155, wherein the step a) includes the step of determining the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

161. The method as recited in claim 160, wherein the message exchanged with the core network is a management/maintenance message.

162. The method as recited in claim 160, wherein the message exchanged with the core network is a signaling message.

163. The method as recited in claim 155, wherein said step c) includes the steps of:

c1) periodically inserting the core network operating
type information and the information related to the core
network into the predetermined location of the message to be
transmitted to the terminal; and

5   c2) transmitting the message to the terminal through the
predetermined channel.

164. The method as recited in claim 155, wherein said
step c) includes the steps of providing the terminal with the
10   core network operating type information and the information
related to the core network through a broadcast control
channel.

165. The method as recited in claim 163, wherein the
15   predetermined location is the core network type information
field of a master information block in a system information
message.

166. The method as recited in claim 155, wherein the core
20   network operating type information is one of ANSI-41
information representing a synchronous operating type core
network and global system for mobile communications
application part(GSM-MAP) information representing an
asynchronous operating type core network.

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167. The method as recited in claim 166, wherein the
information related to the core network includes a protocol

revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the core network is of the synchronous operating type (ANSI-41); and

5   wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the core network is of the asynchronous operating type (GSM-MAP).

10   168. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type and the radio network has an asynchronous operating type, said apparatus comprising:

      determination means, contained in the BS, for determining an operating type of the core network;

20   first setting means, employed in the BS, for setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of the determined operating type of the core network;

      message means, included in the BS, for providing the terminal with core network operating type information and information related to the core network through a predetermined channel;

receiver means, provided in the terminal, for receiving a channel message having the core network operating type information and the information related to the core network;

extraction means, contained in the terminal, for extracting the core network operating type information inserted into a predetermined location of the channel message;

detection means, contained in the terminal, for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

second setting means, contained in the terminal, for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

169. The apparatus as recited in claim 168, further comprising a storage device for storing the recognized operating type of the core network.

170. The apparatus as recited in claim 168, wherein said determination means determines the operating type of the core network on the basis of information from an information storage device included in the BS, during a time period of system initialization.

171. The apparatus as recited in claim 170, wherein the information storage device includes a dip-switch.

172. The apparatus as recited in claim 170, wherein the information storage device includes a read only memory (ROM).

173. The apparatus as recited in claim 168, wherein said determination means determines the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

174. The apparatus as recited in claim 173, wherein the message exchanged with the core network is a management/maintenance message.

175. The apparatus as recited in claim 173, wherein the message exchanged with the core network is a signaling message.

176. The apparatus as recited in claim 168, wherein the message means provides the core network operating type information and the information related to the core network through a broadcast control channel.

177. The apparatus as recited in claim 168, wherein the message means provides the terminal with the core network operating type information and the information related to the core network through the core network type information field of a master information block in a system information message.

178. The apparatus as recited in claim 168, wherein the core network operating type information is one of ANSI-41 information ANSI-41 representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network .

179. The apparatus as recited in claim 168, wherein the BS includes at least a base transceiver station (BTS) and a base station controller (BSC) for controlling the base station transceiver.

180. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having an asynchronous operating type and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) storing core network operating type information and information related to the core network on an information storage device;

b) reading the core network operating type information and information related to the core network stored on the storage device during a time period of initialization of the BS;

c) periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel;

5   d) extracting, at the terminal, the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the received message;

e) recognizing, at the terminal, the operating type of
10   the core network on the basis of the extracted core network operating type information; and

f) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core
15   network.

181. The method as recited in claim 180, after the step e), further comprising the step of storing the recognized operating type of the core network.

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182. The method as recited in claim 180, wherein the information storage device includes a-dip switch.

183. The method as recited in claim 180, wherein the
25   information storage device includes a read only memory (ROM).

184. The method as recited in claim 180, wherein the step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into a predetermined location of the message; and

c2) transmitting the message to the terminal through the predetermined channel.

185. The method as recited in claim 180, wherein the step c) includes the steps of providing the terminal with the core network operating type information and the information related to the core network through a broadcast control channel if the radio network is of the asynchronous operating type.

186. The method as recited in claim 184, wherein the predetermined location is a core network type information field of a master information block in the system information message.

187. The apparatus as recited in claim 180, wherein the core network operating type information is GSM-MAP information representing an asynchronous type core network .

188. The method as recited in claim 187, wherein the information related to the core network includes a public land mobile network identification (PLMN ID).

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189. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station(BS) having an asynchronous operating type and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, comprising:

a storage device, contained in the radio network, for storing core network operating type information and information related to the core network;

first extraction means, contained in the radio network, for reading the core network operating type information and information related to the core network stored in the storage device during a time period of initialization of the BS;

message means, contained in the radio network, for providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel;

second extraction means, contained in the terminal, for extracting the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the received message;

detection means, contained in the terminal, for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

setting means, contained in the terminal, for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

190. The apparatus as recited in claim 189, further comprising a second storage device for storing the recognized operating type of the core network type.

191. The apparatus as recited in claim 189, wherein the first storage device includes a dip-switch.

192. The apparatus as recited in claim 189, wherein the first storage device includes a read only memory (ROM).

193. The apparatus as recited in claim 189, wherein the message means provides the core network operating type information and the information related to the core network through a broadcast control channel.

194. The apparatus as recited in claim 189, wherein the message means inserts the core network operating type information and the information related to the core network into a core network type information field of a master information block in the system information message; and provides the terminal with the core network operating type information and the information related to the core network.

195. The apparatus as recited in claim 189, wherein the core network operating type information is GSM-MAP information representing an asynchronous type core network.

196. The apparatus as recited in claim 189, wherein the BS includes at least one BTS and BSC for controlling the BTS.

197. A method for interfacing between a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said method comprising the steps of:

a) determining, at the BS, an operating type of the core network;

b) setting, at the BS, the BS as the synchronous operating type or the asynchronous operating type on the basis of core network operating type information representing the determined operating type of the core network; and

c) providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message.

198. The method as recited in claim 197, wherein said step a) includes the step of determining the operating type of

the core network on the basis of information from an information storage device contained in BS during a time period of radio network initialization.

199. The method as recited in claim 198, wherein the information storage device includes a dip-switch.

200. The method as recited in claim 198, wherein the information storage device includes a read only memory (ROM).

201. The method as recited in claim 197, wherein the step a) includes the step of determining the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

202. The method as recited in claim 201, wherein the message exchanged with the core network is a management/maintenance message.

203. The method as recited in claim 201, wherein the message exchanged with the core network is a signaling message.

204. The method as recited in claim 197, wherein the step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core

network into the predetermined location of the message to be transmitted to the terminal; and

c2) transmitting the message to the terminal through the predetermined channel.

205. The method as recited in claim 197, wherein the step c) includes the steps of providing the terminal with the core network operating type information and the information related to the core network through a broadcast control channel.

206. The method as recited in claim 204, wherein the predetermined location is core network type information field of a master information block in a system information message.

207. The method as recited in claim 197, wherein the core network operating type information is one of ANSI-41 information representing a synchronous operating type core network and global system for mobile communications application part(GSM-MAP) information representing an asynchronous operating type core network.

208. The method as recited in claim 207, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID) if the radio network is a hybrid type asynchronous radio network and the core network is of the

synchronous operating type (ANSI-41); and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the radio network is a hybrid type asynchronous radio network and the core network is of the asynchronous operating type (GSM-MAP).

209. An apparatus for interfacing between a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said apparatus comprising:

determination means for determining an operating type of the core network;

setting means for setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of core network operating type information representing the determined operating type of the core network; and

message means for providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message.

210. The apparatus as recited in claim 209, wherein said determination means determines the operating type of the core

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network on the basis of information from an information storage device contained in BS during a time period of radio network initialization.

5   211. The apparatus as recited in claim 210, wherein the information storage device includes a dip-switch.

     212. The apparatus as recited in claim 210, wherein the information storage device includes a read only memory (ROM).

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     213. The apparatus as recited in claim 211, wherein said determination means determines the operating type of the core network on the basis of information obtained from a message exchanged with the core network.

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     214. The apparatus as recited in claim 213, wherein the message exchanged with the core network is a management/maintenance message.

20   215. The apparatus as recited in claim 213, wherein the message exchanged with the core network is a signaling message.

     216. The apparatus as recited in claim 209, wherein the 25 message means provides the terminal with the core network operating type information and the information related to the core network through a broadcast control channel.

217. The method as recited in claim 210, wherein the predetermined location is a core network type information field of a master information block in a system information message.

218. The method as recited in claim 209, wherein the core network operating type information is one of ANSI-41 information representing a synchronous operating type core network and global system for mobile communications application part(GSM-MAP) information representing an asynchronous operating type core network.

219. The apparatus as recited in claim 209, wherein the BS includes at least a BTS and a BSC for controlling the BTS.

220. A computer readable media storing a program instructions, the program instructions disposed on a computer to perform a method for interfacing between a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having the radio network has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, said method comprising the steps of:

a) determining an operating type of the core network;

b) setting an operating type of the BS to the synchronous operating type or the asynchronous operating type on the basis of core network operating type information representing the determined operating type of the core network; and

5 c) providing the terminal with the core network operating type information and information related to the core network through a predetermined channel in a form of a message.

221. A method for interfacing among a terminal, a radio
10 network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having an asynchronous operating type and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous
15 operating type, the method comprising the steps of:

a) storing core network operating type information and information related to the core network on a storage device;

b) reading the core network operating type information and information related to the core network stored on the
20 storage device during a time period of initialization of the BS; and

c) periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined
25 channel.

222. The method as recited in claim 221, wherein the storage device includes a-dip switch.

223. The method as recited in claim 221, wherein the storage device includes a read only memory (ROM).

224. The method as recited in claim 221, wherein the step c) includes the steps of:

c1) periodically inserting the core network operating type information and the information related to the core network into a predetermined location of the message; and

c2) transmitting the message to the terminal through the predetermined channel.

225. The method as recited in claim 221, wherein the step c) includes the steps of providing the terminal with the core network operating type information and the information related to the core network through a broadcast control channel.

226. The method as recited in claim 224, wherein the predetermined location is a core network type information field of a master information block in the system information message.

227. The method as recited in claim 221, wherein the core network operating type information is GSM-MAP information representing an asynchronous type core network.

228. The method as recited in claim 221, wherein the information related to the core network includes a public land mobile network identification (PLMN ID).

229. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having an asynchronous operating type and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, comprising:

a storage device, contained in the radio network, for storing core network operating type information and information related to the core network;

extraction means, contained in the radio network, for reading the core network operating type information and information related to the core network stored in the storage device during a time period of initialization of the BS; and

message means, contained in the radio network, for periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel.

230. The apparatus as recited in claim 229, wherein the storage device includes a dip-switch.

231. The apparatus as recited in claim 229, wherein the storage device includes a read only memory (ROM).

232. The apparatus as recited in claim 229, wherein the message means provides the core network operating type information and the information related to the core network through a broadcast control channel.

233. The apparatus as recited in claim 229, wherein the predetermined location is a core network type information field of a master information block in a system information message.

234. The apparatus as recited in claim 229, wherein the core network operating type information is GSM-MAP information representing an asynchronous type core network .

235. The apparatus as recited in claim 229, wherein the BS includes at least one BTS and BSC for controlling the BTS.

236. A computer readable media storing a program instructions, the program instructions disposed on a computer to perform a method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the radio network has a base station (BS) having an asynchronous operating type and the terminal has a hybrid operating type being possible to be

set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) storing core network operating type information and information related to the core network on a storage device;

b) reading the core network operating type information and information related to the core network stored on the storage device during a time period of initialization of the BS; and

c) periodically providing the terminal with the core network operating type information and information related to the core network as a message through a predetermined channel.

237. A method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) receiving a message having core network operating type information and information related to the core network as a message through a predetermined channel;

b) extracting the core network operating type information from the received message, the core network operating type information being inserted into a predetermined location of the received message;

c) recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

d) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

238. The method as recited in claim 237, after the step c), further comprising the step of storing the recognized operating type of the core network.

239. The method as recited in claim 237, wherein the predetermined channel is a broadcast control channel.

240. The method as recited in claim 237, wherein the predetermined location is a core network type information field of a master information block in the system information message.

241. The method as recited in claim 237, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network .

242. The method as recited in claim 241, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID), if the core network operating type information is ANSI-41 information representing a synchronous type core network ; and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the core network operating type information is GSM-MAP information representing an asynchronous type core network .

243. An apparatus for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein and the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, comprising:

receiver means for receiving a message having core network operating type information and information related to the core network through a predetermined channel;

extraction means for extracting the core network operating type information from a received message, the core network operating type information being inserted into a predetermined location of the received message;

detection means for recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

setting means for setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.

244. The apparatus as recited in claim 243, further comprising a storage device for storing the recognized operating type of the core network.

245. The apparatus as recited in claim 243, wherein the predetermined channel is a broadcast control channel.

246. The apparatus as recited in claim 243, wherein the core network operating type information is one of ANSI-41 information representing a synchronous type core network and GSM-MAP information representing an asynchronous type core network .

247. The apparatus as recited in claim 243, wherein the predetermined location is a core network type information field of a master information block in the system information message.

248. The apparatus as recited in claim 247, wherein the information related to the core network includes a protocol revision level (P_REV), a minimum protocol revision level (MIN_P_REV), a system identification (SID) and a network identification (NID), if the core network operating type information is ANSI-41 information representing a synchronous type core network; and

wherein the information related to the core network includes a public land mobile network identification (PLMN ID) if the core network operating type information is GSM-MAP information representing an asynchronous type core network .

249. A computer readable media storing a program instructions, the program instructions disposed on a computer to perform a method for interfacing among a terminal, a radio network and a core network connected to the radio network in a mobile telecommunication system, wherein the terminal has a hybrid operating type being possible to be set as either a synchronous operating type or an asynchronous operating type, the method comprising the steps of:

a) receiving a message having core network operating type information and information related to the core network as a message through a predetermined channel;

b) extracting the core network operating type information from the received message, the core network operating type information being inserted into a predetermined location of the received message;

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c) recognizing the operating type of the core network on the basis of the extracted core network operating type information; and

d) setting an operating type of the terminal to the synchronous operating type or the asynchronous operating type on the basis of the recognized operating type of the core network.